STRUCTURAL EQUATION FOR INVESTORS DECISION MAKING CRITERIA ON INTRA-DAY TRADING

P. Malathi[1] and **Dr. V. Jaishankar[2]**

[1] Research Scholar, Department of Commerce, Government Arts College, Tiruchirappalli – 22.

[2] Assistant Professor & Research Advisor, Department of Commerce, Government Arts College, Tiruchirappalli – 22.

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ABSTRACT

A thorough research in Stock Trading is always very important because people wish for taking control and planning their financial future. So people give great emphasis on the importance of research in stock trading. There is various type of stock trading. Based upon the investors expectation of risk minimization and expected return decide the type of trade that investors enter for trading. In the recent years a Day trading is very popular among the investors for to take a high return with a short period. Day trading, as its name implies, is the method of buying and selling securities within the same day. Traditionally, day trading is done by professional traders, such as specialists or market makers. However, electronic trading has opened up this practice to beginner traders. There are many criteria considered by the investors before picking stock for intra-day trading. This study to develop a structural relationship for the factors involve in decision criteria in intra-day trading.

INTRODUCTION

Role of Stock Exchanges are varied and highly important in the development of economy of a country. They measure and control the growth of a country. Stock markets are the places, where exactly investor's do business of buying and selling stocks as their wishes. Stock trading transactions are executed at the stock exchanges through recognized broker, unless investors have a membership with that exchange, which enable him/her to trade directly. Stock exchange apart from being hub of primary and secondary market, they have very important role to play in the economy of the country. The stock market is important from both the industry's point of view as

well as the investor's point of view. A Day Trade consists of two off-setting transactions which occurred in the same security on the same day. The order of these transactions must be opening followed by closing. This sequence must be maintained to meet the definition of a Day Trade.

1.1 Objective

The primary objective of this paper to identify the decision criteria factor for intra-day trading and find out the structural relationship between the different component which is influence the investors decision making criteria for doing intra-day trading.

METHODOLOGY

In order to investigate the basic objectives of this study, the researcher has indented to employ the descriptive research method. In this study the researcher has wished to apply the primary data. The questionnaire survey technique has proposed to collect data. The researcher in his research study like to apply the random sampling method to select the sample respondents of 150 intra-day traders in the study area of Tiruchirappalli district. the collected data was analyzed with help of statistical software AMOS 18 and SPSS 18 was used to find out the correlation between this factors.

2.1 Investors Decision Making Criteria On Intra-Day Trading

The result is presented in the in order to determine the factors of investors decision making criteria on intra-day trading, it is important to reduce the parameters so that there is a limited set of parameters that represent the total consideration set. A statistical approach – 't' Test and factor analysis has been used for the study. Finally, practical implications of factors concerning the decision making criteria on intra-day trading have been highlighted. The factors in relation with investors decision making criteria rating them by five-point scale. The result is presented in the table no.1.

Table – 1: *Descriptive Analyses on Investors Decision Making Criteria on Intra-Day Trading*

Variable Name	Variable Label	Mean	Std. Dev.	N
V1	Company position in an industry	2.69	1.017	461
V2	Always consider the price of the share	3.60	.803	461
V3	The company past performance	3.33	.886	461
V4	Consider the dividend payout ratio of the company	3.42	.951	461
V5	Taking into consideration of current economic condition	3.02	1.039	461
V6	Minimizing risk of loss	3.31	.905	461
V7	Definitely go through a the company financial statement	3.30	.993	461
V8	Present market condition of the firm	3.47	.770	461
V9	Recent development in stock index	3.50	.765	461
V10	Consider the price volatility	3.47	.759	461
V11	Opinion of brokerage firms	3.47	.765	461
V12	Perceived ethics of firm	3.74	.866	461

V13	Consider the expansion activity of the firm	3.38	.719	461
V14	People opinion on the stock	3.31	.815	461
V15	Ultimately to take huge amount of return	3.04	.896	461
V16	Brokerage firm's material advice	3.09	.823	461
V17	Consider the personal Calculation	3.36	.743	461
V18	Consider present saving before buy stock	3.40	.878	461
V19	Very well know the asset allocation	3.12	.993	461
V20	I know my decision on how to split money between stocks	3.50	.946	461
V21	Do you have a personal financial roadmap	3.48	.820	461
V22	Evaluate my comfort zone in taking on risk	3.42	.813	461
V23	Enough money in a savings product to cover an emergency	3.32	.999	461
V24	Consider the Rupee value averaging	3.29	.953	461
V25	I will never take investment advice from the market, it often lies	3.14	.977	461
V26	Follow the trend	3.34	.759	461
V27	Global developments also needs to be watched	3.29	1.033	461
V28	I consider the stock which I have appropriate knowledge about the sector	3.44	.766	461

The explanatory factor analysis is used to identify the factors that emerged to predict the investors decision making criteria for intra-day trading. To test the suitability of the data for factor analysis, the following steps have been taken. The correlation matrices are computed and examined. It reveals that there are enough correlations to go ahead with factor analysis. (KMO = .740, Chi-Square 3566.735, DF = .378, P <.0001)
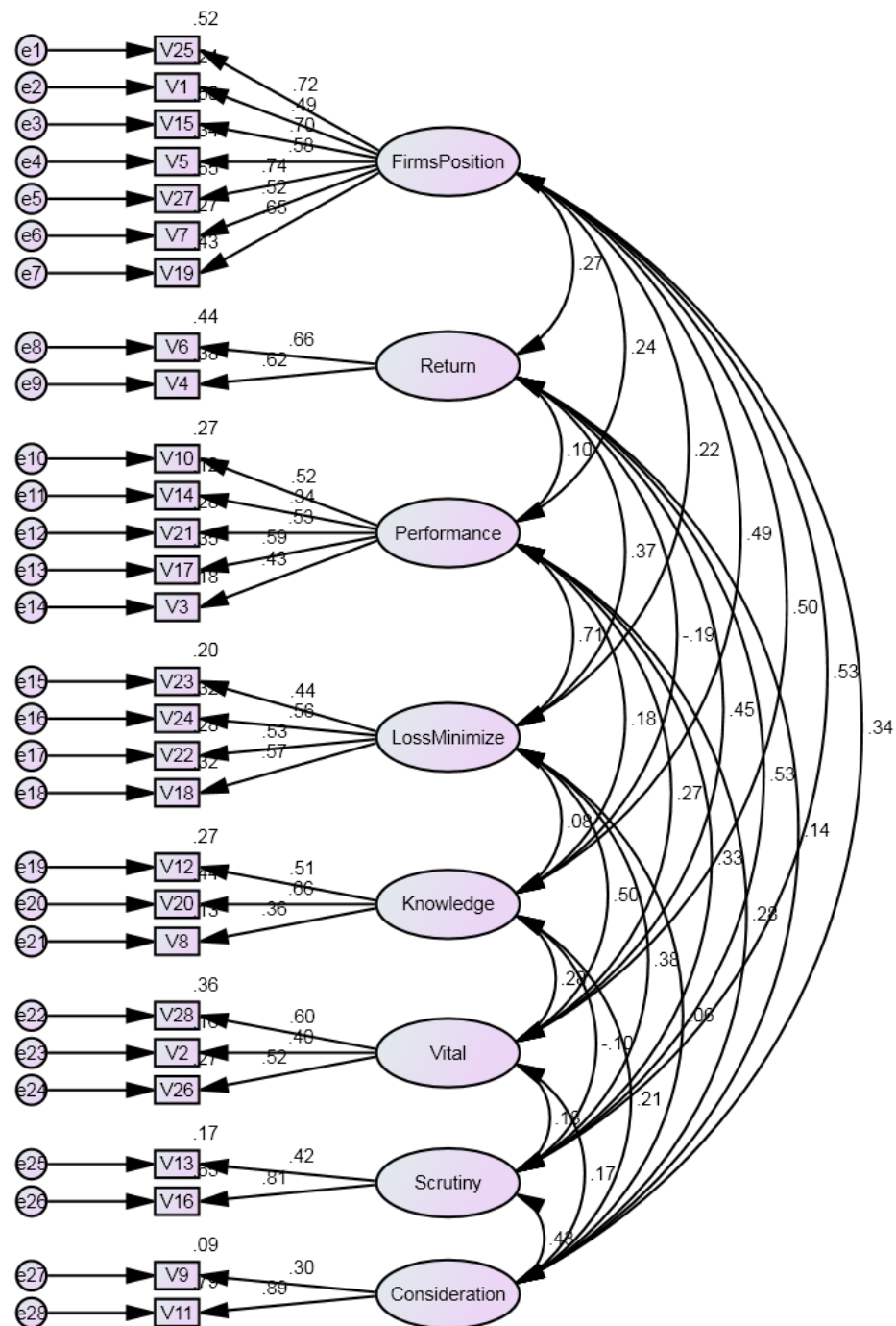
2.2 Investors Decision Making Factors of Intra-Day Trading

The twenty-eight decision making attributes has been grouped into eight dimensions. The structural equation modeling has been used to know the effectiveness of this eight investors decision making dimensions.

Table – 2: *Summary of Model Fit*

Research Model		Obtained fit indices	Suggested fit indices*
Advanced fit model	**CMIN/DF**	4.544	<5
	RMSEA	.088	<0.08
	SRMR	.064	<0.05
Incremental fit model	**CFI**	.851	>0.90
	NFI	.829	>0.90
	NLI	.862	>0.90
Parsimonious fit model	**AGFI**	.772	>0.5
	PGFI	.649	>0.5

* Suggestion for indices were adapted from literature Byrne, 2006: Hair et al., 2006: Raykov and marcoulides, 2006: and Tabachnic and Fidell, 2007.

Diagram – 1: *Structural Equation Modeling for Investors Decision Making Criteria for Intra-Day Trading – By Overall Investor's Consideration*

Table – 3: *Standardized Regression weights for investors decision making criteria for intra-day trading – By Overall investors consideration*

Observed variables	Latent factors	Reg. Estimate	S.E.	C.R.	P	Std.Reg. Estimate
V25	FirmsPosition	.706	.042	16.833	.001	.723
V1	FirmsPosition	.494	.048	10.320	.001	.486
V15	FirmsPosition	.630	.039	16.245	.001	.704

V5	FirmsPosition	.607	.047	12.830	.001	.585
V27	**FirmsPosition**	**.765**	**.044**	**17.417**	**.001**	**.742**
V7	FirmsPosition	.513	.046	11.088	.001	.517
V19	FirmsPosition	.648	.044	14.742	.001	.654
V6	**Return**	**.597**	**.055**	**10.904**	**.001**	**.660**
V4	Return	.586	.056	10.462	.001	.617
V10	Performance	.397	.040	9.885	.001	.524
V14	Performance	.280	.044	6.312	.001	.344
V21	Performance	.437	.043	10.068	.001	.533
V17	**Performance**	**.441**	**.039**	**11.298**	**.001**	**.594**
V3	Performance	.380	.048	7.977	.001	.429
V23	LossMinimize	.443	.053	8.362	.001	.445
V24	LossMinimize	.536	.050	10.785	.001	.563
V22	LossMinimize	.429	.043	10.067	.001	.528
V18	**LossMinimize**	**.497**	**.046**	**10.866**	**.001**	**.567**
V12	Knowledge	.445	.049	9.039	.001	.515
V20	**Knowledge**	**.627**	**.057**	**10.992**	**.001**	**.664**
V8	Knowledge	.277	.044	6.320	.001	.360
V28	**Vital**	**.460**	**.045**	**10.253**	**.001**	**.601**
V2	Vital	.323	.046	7.044	.001	.403
V26	Vital	.396	.043	9.121	.001	.522
V13	Scrutiny	.300	.038	7.993	.001	.418
V16	**Scrutiny**	**.662**	**.054**	**12.364**	**.001**	**.806**
V9	Consideration	.230	.049	4.663	.001	.302
V11	**Consideration**	**.680**	**.107**	**6.346**	**.001**	**.891**

The above table shows the standardized regression weights of each investors decision making variables corresponding to the significant value. There are eight factors are emerged to predict the twenty-eight investors decision making variables regarding intra-day trading. The above table shows the overall investors consideration regarding their decision over intra-day trading.

Factor 1: Firms Position: The probability of getting a critical ratio as large as 17.407 in absolute value is less than 0.001. In other words, the regression weight for FirmsPosition in the prediction of V27 is significantly different from zero at the 0.001 level (two-tailed). It is found that When FirmsPosition goes up by 1 standard deviation, V27 goes up by 0.742 standard deviations. The probability of getting a critical ratio as large as 16.823 in absolute value is less than 0.001. In other words, the regression weight for FirmsPosition in the prediction of V25 is significantly different from zero at the 0.001 level (two-tailed). It is observed that When FirmsPosition goes up by 1 standard deviation, V25 goes up by 0.723 standard deviations.

Factor 2: Return: The probability of getting a critical ratio as large as 10.898 in absolute value is less than 0.001. In other words, the regression weight for Return in the prediction of V6 is significantly different from zero at the 0.001 level (two-tailed). It is found that When Return goes up by 1 standard deviation, V6 goes up by 0.66 standard deviations.

Factor 3: Firms Performance: The probability of getting a critical ratio as large as 11.292 in absolute value is less than 0.001. In other words, the regression weight for **Performance** in the prediction of **V17** is significantly different from zero at the 0.001 level (two-tailed). It is concluded that When Performance goes up by 1 standard deviation, V17 goes up by 0.594 standard deviations.

Factor 4: Loss Minimization: The probability of getting a critical ratio as large as 10.86 in absolute value is less than 0.001. In other words, the regression weight for LossMinimize in the prediction of V18 is significantly different from zero at the 0.001 level (two-tailed). It is clear that When LossMinimize goes up by 1 standard deviation, V18 goes up by 0.567 standard deviations.

Factor 5: Knowledge: The probability of getting a critical ratio as large as 10.986 in absolute value is less than 0.001. In other words, the regression weight for Knowledge in the prediction of V20 is significantly different from zero at the 0.001 level (two-tailed).it is concluded that When Knowledge goes up by 1 standard deviation, V20 goes up by 0.664 standard deviations.

Factor 6: Vital Factor: The probability of getting a critical ratio as large as 10.248 in absolute value is less than 0.001. In other words, the regression weight for Vital in the prediction of V28 is significantly different from zero at the 0.001 level (two-tailed). It is observed that When Vital goes up by 1 standard deviation, V28 goes up by 0.601 standard deviations.

Factor 7: Scrutiny: The probability of getting a critical ratio as large as 12.357 in absolute value is less than 0.001. In other words, the regression weight for **Scrutiny** in the prediction of **V16** is significantly different from zero at the 0.001 level (two-tailed). It is observed that When Scrutiny goes up by 1 standard deviation, V16 goes up by 0.806 standard deviations.

Factor 8: Consideration: The probability of getting a critical ratio as large as 6.343 in absolute value is less than 0.001. In other words, the regression weight for Consideration in the prediction of V11 is significantly different from zero at the 0.001 level (two-tailed). The above table clearly indicate that When **Consideration** goes up by 1 standard deviation, **V11** goes up by 0.891 standard deviations.

Table – 4: *Component Correlation Matrix*

Component	F1	F 2	F 3	F 4	F 5	F 6	F 7	F 8
F 1	1.000	.256	.133	.095	.198	.048	.271	.141
F 2	**.256**	1.000	.068	.182	.016	-.104	-.038	-.100
F 3	.133	.068	1.000	.376	.035	.104	.186	-.008
F 4	.095	.182	**.376**	1.000	.073	.299	.050	.049
F 5	.198	.016	.035	.073	1.000	.054	.126	-.031
F 6	.048	-.104	.104	**.299**	.054	1.000	-.007	.102

F 7	**.271**	-.038	.186	.050	.126	-.007	1.000	.099
F 8	.141	-.100	-.008	.049	-.031	.102	.099	1.000

Extraction Method: *Principal Component Analysis.*

Rotation Method: *Promax with Kaiser Normalization.*

The above table shows the pairwise relationship between eight factor of investors decision making over the intra-day trading. The significant and insignificant correcation between the factors are highlighted in the above table. it is observed that all the eight factors have significant relationship between them. The performance factor and investors loss minimization factor has moderate relationhip by .376 and significant at .0001. The factors such as loss minimization and vital factor of investors decision on intra-day trading has moderate relationhip by .299 and significant at .0001. it is also observed from the about table that the investors decision making factors namely, firms position and Scrutiny over the firm has moderate relationship by .255 and significant at .0001. However, the factors namely consideration vital knowledge over stock has insignificant relationship. The scrutiny of stock pick and vital factor has insignificant relationship. The investors observed factor and performance factor has insignificant relationship.

CONCLUSION

The above findings reflect that the investors highly consider the firms' performance as well as their intention of minimization of loss in the stock. the analyze clearly indicate that among the five indicators within the firms' performance factor, the investors personal calculate before the trading day will the investors to choose the right stock. This will reflect in their loss minimization strategy. it is concluded that When investors make a good research of the company then the investors would be able to make an educated decision whether the company are investing is stable, growing and has a good future.

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Diagram – 2: *Scater Plot Matrix Shows the Significant Value of Pair Wise Correlation*
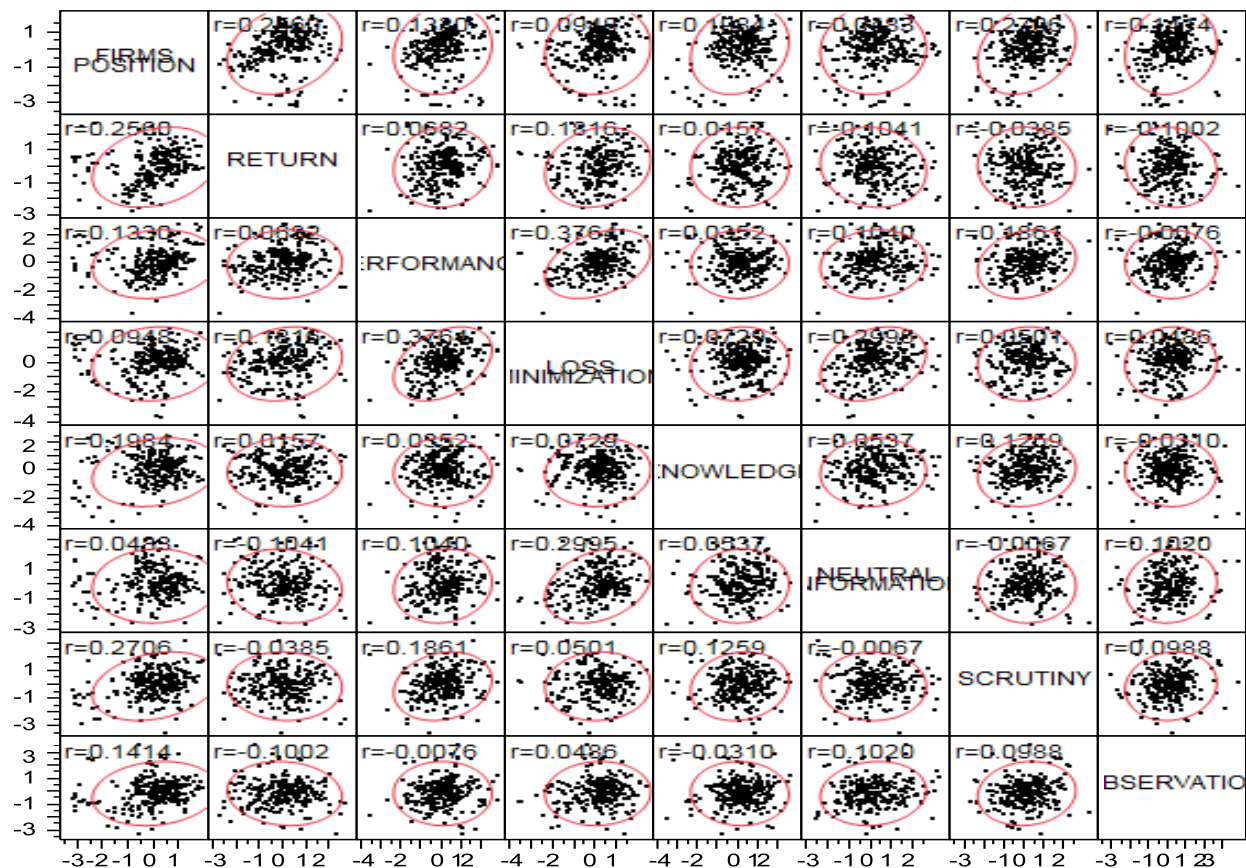
ANNEXTURE – I: *Validity Master – Factors of Investors Decision Over Doing Intra-Day Trading*

	CR	AVE	MSV	MaxR(H)	Scrutiny	Firms Position	Return	Performance	Loss Minimize	Knowledge	Vital	Consideration
Scrutiny	0.560	0.412	0.285	0.674	0.642							
Firms Position	0.824	0.406	0.285	0.880	0.534	0.637						
Return	0.579	0.408	0.277	0.897	0.526	0.273	0.639					
Performance	0.608	0.243	0.498	0.912	0.334	0.236	0.102	0.493				
Loss Minimize	0.605	0.279	0.498	0.923	0.380	0.223	0.374	0.706	0.528			
Knowledge	0.523	0.279	0.242	0.930	-0.101	0.492	-0.185	0.178	0.078	0.528		
Vital	0.514	0.265	0.251	0.935	0.178	0.495	0.453	0.270	0.501	0.277	0.515	
Consideration	0.561	0.443	0.186	0.948	0.431	0.342	0.138	0.279	0.058	0.214	0.166	0.665

VALIDITY CONCERNS

1. **Discriminant Validity:** The square root of the AVE for Performance factor is less than one the absolute value of the correlations with another factor.
2. **Discriminant Validity:** The square root of the AVE for Loss Minimize factor is less than one the absolute value of the correlations with another factor.

- **Reliability:** The CR for Scrutiny factor is less than 0.70.
- **Convergent Validity:** The AVE for Scrutiny factor is less than 0.50.
- **Convergent Validity:** The AVE for FirmsPosition factor is less than 0.50.
- **Reliability:** The CR for Return factor is less than 0.70.
- **Convergent Validity:** The AVE for Return factor is less than 0.50.
- **Reliability:** The CR for Performance factor is less than 0.70.
- **Convergent Validity:** The AVE for Performance factor is less than 0.50.
- **Discriminant Validity:** The AVE for Performance factor is less than the MSV.
- **Reliability:** The CR for LossMinimize factor is less than 0.70.
- **Convergent Validity:** The AVE for LossMinimize factor is less than 0.50.
- **Discriminant Validity:** The AVE for LossMinimize factor is less than the MSV.
- **Reliability:** The CR for Knowledge factor is less than 0.70.
- **Convergent Validity:** The AVE for Knowledge factor is less than 0.50.
- **Reliability:** The CR for Vital factor is less than 0.70.
- **Convergent Validity:** The AVE for Vital factor is less than 0.50.
- **Reliability:** The CR for Consideration factor is less than 0.70.
- **Convergent Validity:** The AVE for Consideration factor is less than 0.50.